STARLUX Airlines

2024 Task Force on Climate-related Financial Disclosures (TCFD) Report

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Content

Preface

As an emerging international airline, STARLUX Airlines actively addresses the potential risks posed by climate change. The Company formulates and implements strategies to respond to extreme climate events and strengthen climate resilience, taking proactive steps toward low-carbon operations.

According to the World Economic Forum's annual Global Risks Report, climate change has consistently been identified as one of the most significant long-term global risks. STARLUX Airlines recognizes the impact of climate change on business operations and adopts the “Sustainable Development Practices Guidelines” and “Risk Management Procedures” as guidance for daily operations. The Company has set a net-zero emissions goal for 2025 and is actively planning and executing mitigation and adaptation measures for climate change.

In response to key global climate action indicators, STARLUX adopted the framework of the Task Force on Climate-related Financial Disclosures (TCFD) in its first year as a publicly listed company. By facilitating internal cross-functional discussions and consulting external experts, the Company continues to identify climate-related risks and opportunities across the value chain, and establishes measurable indicators and target management systems.

To address climate impacts on operations, STARLUX focuses on “introducing energy-efficient fleets” and “enhancing operational efficiency,” offering customers a low-carbon travel experience. The Company is committed to reducing emissions step by step, promoting sustainable aviation, and progressing toward the 2025 net-zero goal.

Climate Governance

Role of the Board in Climate Governance

The Board of Directors, as the highest climate governance body, drives climate-related strategies, aiming for an efficient, energy-saving airline while overseeing climate action implementation. They determine climate commitments and targets, discussing risk-opportunity trends and proposing strategies for key climate risks.

Role of Functional Committees

A Corporate Sustainability Committee is established under the Board of Directors as a functional committee responsible for the Company's sustainable development and overall promotion. It convenes at least once a year and regularly reports to the board. In 2024, it reported to and obtained approval from the board on the key focus areas of the Sustainability Report, the timeline for GHG inventory execution and verification, and the IFRS sustainability disclosure standards.

Under the Corporate Sustainability Committee, the Sustainability Steering Committee serves as the sustainability implementation body. It holds meetings at least every six months to discuss implementation plans and coordinate cross-unit collaboration, and it reports to the Corporate Sustainability Committee at least every eight months on the execution status of climate change response topics such as SAF and carbon emissions.

Role of Task Forces

To mitigate climate change impacts and understand key risks and opportunities, an integrated TCFD Working Group was established under the Corporate Sustainability Committee. This group, comprising various units, collects climate research from international authorities, assesses industry trends, and compiles climate issues faced by different units. The Working Group aims to enhance the airline's climate resilience by actively addressing and managing current trends, thereby reducing the company's vulnerability to climate-related financial impacts.

Climate Risk Management

STARLUX has established “Sustainable Development Practices Guidelines” and “Risk Management Procedures” to address key climate opportunities and risks. These documents outline the company’s approach to evaluating climate change impacts, conducting greenhouse gas inventories, and implementing energy conservation and carbon reduction policies, including carbon credit acquisition. The Corporate Sustainability Committee, through its TCFD Working Group, annually collects industry sustainability reports, CDP climate questionnaires, and aviation service trends. The Working Group interviews relevant units to assess climate issues’ impact and likelihood, identifying key annual climate risks and opportunities for STARLUX. These findings are then reported to the Corporate Sustainability Committee and ultimately to the Board of Directors for strategic decision-making, ensuring a comprehensive approach to climate-related challenges and opportunities in the airline’s operations.

Gathering Issues	● TCFD Guidelines ● Industry CDP Questionnaires ● Industry Sustainability Reports ● Trends in the Aviation Service Industry
Identifying Risks and Opportunities	● Conduct interviews with various units. ● Each unit assesses the likelihood and impact of risks and opportunities and estimates their effects at short-term (0 to 3 years), medium-term (3 to 10 years), and long-term (>10 years) timeframes to formulate short, medium, and long-term response strategies.
Formulating Response Measures	● The Corporate Sustainability Committee integrates the analysis results of key climate risks and opportunities into the overall operational and risk management strategies of the company. They discuss and develop corresponding measures and goals with various departments units and offices in charge.
Tracking and Management	● The Corporate Sustainability Committee and its TCFD Task Force regularly or irregularly monitor and review the progress of response measures, closely tracking climate issues in response to changes in the internal and external environment to ensure the effectiveness of response measures in a dynamic environment. ● Each responsible unit submits an annual report on goal attainment to the TCFD Task Force. ● Responsible units hold regular meetings to review progress toward goals.

Climate Change Response Strategy

In 2023, STARLUX identified 14 climate-related risks and opportunities relevant to the company, based on its development strategy, aviation industry characteristics and trends, regulatory trends, and geographical features. These include 6 transition risks, 3 physical risks, and 5 climate opportunities.

The TCFD Wording Group assessed 14 climate issues, creating a materiality matrix based on division interviews and impact evaluations. The analysis identified one high-priority opportunity: enhancing fuel-efficient operations. Additionally, two moderate-risk areas (increased sustainable fuel costs and consumer preference for low-carbon flights) and three moderate opportunities (more efficient buildings, changing consumer preferences, and developing low-carbon aviation services) were highlighted. The company plans to analyze impacts and develop strategies for these key areas, with regular progress reports to the Corporate Sustainability Committee.

Table 1: Assessment of Climate Risks

Climate Risk Type			Risk Description	Impact Timeline	Value Chain Impact
Transformation Risks	Policies and Regulations	Regulation of carbon emissions in the aviation industry	• Conduct carbon monitoring, reporting, and verification operations according to the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), increasing manpower and external verification costs.	Short-term	Internal Operations
		Carbon emissions trading and reduction mechanisms	• Adhere to the CORSIA goal of achieving net-zero emissions by 2050. • Implement carbon levies and offsetting mechanisms, leading to increased operational costs.	Short-term	Internal Operations
	Technology	Immaturity of the Sustainable Aviation Fuel (SAF) value chain	• Limited infrastructure for the production and storage of Sustainable Aviation Fuel (SAF), as well as a lack of recognized production standards and related measures.	Medium-term	Upstream Supply Chain, Internal Operations
		Capital investment in transportation services using low-carbon technology	• Continued investment in low-carbon aircraft development by the aviation manufacturing industry, impacting future aviation power designs; the company commits more capital expenditure to introducing more fuel-efficient and carbon-reducing aircraft models and fleets.	Short-term	Internal Operations
	Market	Rising costs of sustainable fuel	• Increasingly stringent regulations on sustainable fuel use globally, coupled with rising demand, leading to higher production costs for SAF, surpassing those of traditional jet fuel, resulting in increased fuel raw material costs.	Medium-term	Upstream Supply Chain, Internal Operations
	Reputation	Consumer preference for low-carbon flying	• Consumers consider climate change adaptation measures when traveling; corporate clients are mindful of carbon emissions from business travel and are more inclined to choose flights with lower carbon footprints. Failure to meet consumer demands may result in reduced revenue.	Medium-term	Internal Operations, Downstream Customers

Table 1: Assessment of Climate Risks

Climate Risk Type			Risk Description	Impact Timeline	Value Chain Impact
Physical Risks	Acute	Increased severity and frequency of extreme weather events like typhoons and floods	• Extreme weather events like typhoons and floods cause flight delays or cancellations, increased flight times, resulting in additional costs such as passenger rebooking, flight crew scheduling, and increased fuel usage. • Damage to infrastructure such as aprons and runways due to extreme weather.	Short-term	Upstream Supply Chain, Internal Operations, Downstream Customers
	Chronic	Rising average temperatures	• High temperatures reduce aircraft lift during takeoff, affecting aircraft performance and imposing limitations on maximum takeoff weights, leading to reduced revenue. • Increased fuel costs to maintain cabin air conditioning comfort.	Long-term	Upstream Supply Chain, Internal Operations, Downstream Customers
	Chronic	Changes in rainfall (water) patterns and long-term extreme climate variations	• More frequent and intense rainfall affects flight paths and flight operations, potentially leading to flight cancellations, delays, and diversions due to safety concerns. • Prolonged rainfall reduces equipment lifespan, leading to increased equipment and maintenance costs.	Long-term	Upstream Supply Chain, Internal Operations, Downstream Customers

Table 2: Assessment of Climate Opportunities

Climate Opportunity Types		Opportunity Description	Impact Timeline	Value Chain Impact
Products and Services	Development and/ or expansion of low-carbon aviation services	● Lightweight Unit Load Devices (ULDs) are employed to reduce payload; pre-selection of meals and waste management reduce resource consumption and food wastage. ● Implementation of systems to calculate carbon emissions per flight, reducing fuel usage while lowering greenhouse gas emissions. ● The A321neo and A330neo fleets adopt paperless operations to reduce aircraft weight and implement low-carbon flight management.	Short-term	Internal Operations
	Changes in consumer preferences	● Procurement of next-generation aircraft models with high fuel efficiency and noise reduction to meet consumer demand for low-carbon travel and to establish brand image.	Medium-term	Internal Operations, Downstream Customers
Energy Sources	Use of Sustainable Aviation Fuel (SAF)	● Participation in collaborations related to Sustainable Aviation Fuel (SAF), attending aircraft manufacturer conferences to promote SAF commercialization, ensuring stable supply and reasonable purchasing costs of sustainable fuel。	Medium-term	Upstream Supply Chain, Internal Operations
Resource Efficiency	Operational models for improving fuel efficiency	● As a newly established global airline, possessing the latest and most energy-efficient aircraft models and fleets, offering competitive advantages over peers. ● Establishment of fuel-saving teams to regularly discuss fuel-saving schemes, outlining specific plans to reduce fuel procurement costs and potential carbon levies and offsetting costs.	Short-term	Internal Operations
	Moving towards more efficient buildings	● Evaluation of smart green building designs for the new headquarters, incorporating renewable energy facilities. ● Accessing preferential interest rates by meeting the financing conditions for obtaining the Taiwan Green Building Silver Certification.	Medium-term	Internal Operations

Major Climate Risks and Opportunities

STARLUX Airlines sees key climate opportunities in enhancing fuel efficiency, developing green infrastructure, and meeting rising demand for low-carbon travel through the use of SAF-ready aircraft and transparent carbon footprint tools. At the same time, the airline faces risks from increasing SAF costs and growing consumer expectations for sustainable travel, which it addresses through policy engagement and low-emission service offerings.

Table 3: Major Climate Risks and Opportunities & STARLUX Strategies

Top Three Climate Risks and Opportunities

Category		Risk or Opportunity	Potential Financial Impact	STARLUX Response Strategies
Resource Efficiency Enhancement	Opportunities	Enhancing fuel efficiency in operational modes	• Reduction in operating costs • Increase in operating revenue	• Provide a comprehensive fuel management plan to the Civil Aviation Administration, approved by the authority to reduce contingency fuel carried, thereby reducing fuel load and consumption, while increasing payload and consequently increasing operating revenue. • Through cross-unit collaboration, include all routes in the application for Reduced Vertical Separation Minimum (RVSM) operations, increasing cruising altitude to reduce air resistance and avoid turbulence, thereby reducing fuel consumption.
	Opportunities	Transitioning towards more efficient buildings	• Increase in capital expenditures • Reduction in operating costs	• Construct a new headquarters with the goal of achieving Taiwan's Green Building Silver certification and architectural energy efficiency design principles and obtain preferential rates for ESG sustainable development loans. • Plan to install solar photovoltaic energy storage systems to achieve carbon reduction while maintaining stable power supply.

Top Three Climate Risks and Opportunities

Category		Risk or Opportunity	Potential Financial Impact	STARLUX Response Strategies
Consumer Preferences	Opportunities	Changing consumer preferences	Increase in operating revenue	• Continuously introduce more fuel-efficient aircraft models compared to previous generations to reduce fuel usage and carbon emissions and specify in the procurement of new aircraft that the aircraft types must comply with sustainable aviation fuel (SAF) fuel standard documents, integrating them into the company's existing quality system or other management mechanisms. • Collaborate with Google and provide estimated carbon emissions for selected flights and cabin classes on the official booking platform, allowing passengers to calculate and understand the environmental impact of their flights.
	Transition Risks	Consumer preference for low-carbon flying	Decrease in operating revenue	• Pay attention to the requirements and considerations of corporate partners regarding low-carbon flying, jointly seeking solutions to reduce the environmental impact of business travel. • Implement a flight carbon emissions calculator to provide consumers with the option of low-carbon flights, while continuously monitoring flight carbon emissions, allowing customers to continuously track and achieve the goal of sustainable low-carbon travel.

Top Three Climate Risks and Opportunities

Category		Risk or Opportunity	Potential Financial Impact	STARLUX Response Strategies
Low Carbon Aviation Products and Services	Transition Risks	Rising costs of sustainable fuels	Increase in operating costs	• Regularly participate in meetings of the Bureau of Standards, Metrology and Inspection under the Ministry of Economic Affairs, Civil Aviation Administration, and annual meetings of civil aircraft manufacturers to keep abreast of trends in sustainable aviation fuel (SAF) regulations and technological developments. • Formulate policies based on the potential policies and coordinated approaches for the deployment of sustainable aviation fuels provided by ICAO.
	Opportunities	Development and/ or expansion of low-carbon aviation services	Reduction in operating costs	• When purchasing Unit Load Devices (ULDs), prioritize weight considerations and expand optimized off-site washing processes to other long-haul routes to reduce on-board weight. • Manage meal supply situations and ensure that station personnel effectively handle on-site meal additions and subtractions to reduce resource waste and food leftovers.

Performance Metrics and Targets

STARLUX Airlines aligns its GHG reduction efforts with Taiwan's 2050 net-zero targets, conducting regular policy reviews and setting emission goals through materiality assessments. The Company continues to modernize its fleet with SAF-ready aircraft like the A321neo and promotes emissions reduction through lightweight equipment and digital operations. Backed by a NT$32 billion syndicated loan, STARLUX invests in low-carbon assets and plans to adopt internal carbon pricing under CORSIA. It is also exploring incentive structures that link executive compensation to climate performance.

Table 4: Climate Performance Metrics & Targets

<table>
<tr><th colspan="2">Indicator types</th><th>Management of Response Strategies and Objectives</th></tr>
<tr><td colspan="2">Greenhouse gas emissions</td><td>Carbon Reduction Strategies:
● Commit to fully cooperating with national net-zero emission pathways and strategies, working towards the goal of achieving net-zero carbon emissions by 2050.
● Develop carbon reduction plans and conduct goal checks and policy formulation every six months

Carbon Reduction Performance and Targets:
● For the 2024 goals, performance, and achievement status, please refer to 1.4 Major Topic Identification and Analysis
● For the 2025 goals and mid- and long-term goals, please refer to 1.4 Major Topic Identification and Analysis</td></tr>
<tr><td rowspan="3">Risks and opportunities</td><td>Transition Risks</td><td rowspan="3">After identifying STARLUX Airlines' material climate issues, which closely relate to enhancing energy efficiency, adopting lower-carbon fuels, offering consumers low-carbon flight experiences, and disclosing carbon information, relevant indicators and targets have been established to track progress.

2024 Annual Performance
● Gradually introduce carbon-reducing and noise-reducing aircraft such as the A321neo and ensure that the documentation for these aircraft specifies the standards for the use of sustainable aviation fuel (SAF). Incorporate these standards into the company's existing quality system or other management mechanisms.
● Procure lightweight unit load devices (ULDs) to reduce onboard weight.

Goals
● Introduce low-carbon emission freighter A350F
● In addition to procuring lightweight ULDs, reduce aircraft weight through controlling meal waste and implementing paperless onboard operations.</td></tr>
<tr><td>Physical Risks</td></tr>
<tr><td>Climate Opportunities</td></tr>
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Indicator types	Management of Response Strategies and Objectives
Capital allocation	In response to the expansion of the scale of operations and the consequent enlargement of its new fleet, STARLUX Airlines with strong support from its banking consortium, secured a syndicated loan of NTD 32 billion to introduce the most advanced and environmentally friendly aircraft models and to continue procuring aircraft and ground equipment equipped with carbon reduction technologies.
Internal carbon pricing	By the end of 2023, the Civil Aviation Administration completed the legislation for carbon reduction in domestic aviation. Following the International Civil Aviation Organization's CORSIA regulations, carbon emissions are to be maintained at 2019 levels from 2021 to 2023 and reduced by 15% from 2024 to 2035. Exceeding emission standards will require the purchase of carbon credits for offsetting. **Goals** ● Continue monitoring internal carbon pricing strategies within the industry and participating in relevant meetings to effectively manage carbon risks and seize carbon opportunities through exchanges. Simultaneously, internalize the external costs of carbon emissions by incorporating these costs into decision-making and investment evaluations. ● Internal carbon pricing will be gradually implemented in the future, with ongoing monitoring of market prices and social cost information as a reference for subsequent decisions.
Compensation	The Company plans to link remuneration with climate-related performance to ensure the effective implementation of climate risk and opportunity response actions within the organization. **Goals** ● Include the outcomes of corporate sustainability implementation in performance evaluations. ● Future discussions will continue on issues and mechanisms related to remuneration for directors and senior management concerning climate risks and opportunities.